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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,801	11/30/2001	Bin Zhao	12569-07/NEC	6082

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EXAMINER

VY, HUNG T

ART UNIT PAPER NUMBER

2828

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No

10/016,801

Applicant(s)

ZHAO, BIN

Examiner

Hung T Vy

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
PAUL IP  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

## **DETAILED ACTION**

1. In response to the communications dated 11/30/2001, claims 1-18 are pending in this application.

### **Specification**

2. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### **Claim Rejections - 35 USC § 112**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 the phrase "the first and second light transmissive materials cooperate with one another in manner with mitigates changes in an optical path length of the reflective resonator due to changes in temperature " renders the claim indefinite because it is unclear how light transmissive material cooperates. The claim only recites

the first and second light transmissive material, the claim does not recite any structure and material in order to produce temperature compensating reflective resonator.

Further, the claim recites the reflective resonator but the claim does not clear how reflective resonator with only one mirror.

Regarding claims 4-5,7, 17 and 18, the claims are rendered indefinite because it is not clear how temperature compensating reflective resonator with the claims recite only the solid light transmissive material, a reflector and a gap. The claims do not recite any structure to support the temperature compensating.

Regarding claim 6, the claim is rendered indefinite because it is not clear how light transmissive material cooperates. The claim recite the first and second the light transmissive materials, the claim does not recite the structure in order to produce frequency locker.

Regarding claims 9, and 14, the phrase "Ohara Corporation S-FPL51 glass" renders claim indefinite because it is unclear how applicant can claim the name "Ohara Corporation S-FPL51 glass". The name "Ohara Corporation S-FPL51 glass" is belonged to Ohara corporation.

Claims 2,3, and 8-16 depend from rejected claim 1,4,5,6, 7,17 and 18 thereby render these dependent claims indefinite.

### **Double Patenting**

4. Claims 1-18 of this application conflict with claims 1-17 of Application

No.10016729. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

5. Claims 4 objected to under 37 CFR 1.75 as being a substantial duplicate of claim 5. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### **Claim Rejections - 35 USC § 102**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 17-18 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Conrad, U.S. patent No. 4,167,463.

Regarding claims 1-6, Conrad discloses a device comprising: a first light transmissive material (14); a second light transmissive material (12); and wherein the first (14) and second light transmissive materials (12) cooperate with one another in manner which mitigates changes in an optical path length of the reflective resonator due to changes in temperature (See column 2, line 50-65), the second light transmissive material comprises a material selected from the group of air; vacuum; and liquid (See column 2, 36-44), a reflector (18), it is inherent the thermal coefficient of optical path length by given the formular :  $\alpha_{op} = dOP/(OpdT)$  because when the device has the optical path length OP then the device will have the same fumular.

With respect to claims 17-18, the methods for mitigating undesirable efforts due to temperature are considered as product by process steps.

### **Claim Rejections - 35 U.S.C. § 103**

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-16 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Conrad, U.S. patent No. 4,167,463 in view of Donjon et al, U.S. Patent No. 3,781,469.

Regarding claim 7, Conrad discloses all limitation of device except for a holder configured to hold the front surface of the light transmitting material at approximately a fixed distance to respect to the reflector. However, Donjon et al. disclose the holder the front surface of the light transmitting material (See fig. 1-4).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Conrad to have holder as taught by donjon et al. because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding claim 8-16, Conrad discloses the light transmitting material comprises glass (14) (See fig); the reflector comprises a mirror (18).

### **Citation of Pertinent References**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Brown et al. discloses Laser System Using Pentaphosphate Active Mediums, U.S. Patent No. 4,249,141.

### **Conclusion**

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9. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
PAUL IP  
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TECHNOLOGY CENTER 2800

Hung T. Vy  
Art Unit 2828

April 26, 2003